

CLAIMS

1 1. An input device for a computer comprising:
2 a housing;
3 a position-determining system mounted to the housing, the position-
4 determining system being operative to determine movement of the housing and to
5 provide a first output corresponding to the movement of the housing; and
6 a trackball mounted to the housing, the trackball being operative to rotate and
7 to provide a second output corresponding to rotation of the trackball.

1 2. The input device of claim 1, wherein:
2 the housing has a bottom surface; and
3 the position-determining system is operative to detect movement of a surface
4 upon which the housing is placed relative to the bottom surface of the housing.

1 3. The input device of claim 2, wherein:
2 the trackball is a first trackball; and
3 the position-determining system comprises a second trackball, a portion of
4 which protrudes from the bottom surface of the housing such that the second trackball
5 contacts the surface upon which the housing is placed.

1 4. The input device of claim 2, wherein:
2 the housing has a top surface; and
3 the trackball protrudes from the top surface of the housing.

1 5. The input device of claim 4, wherein:
2 the housing is sized and shaped to be grasped by a hand of a user; and
3 the input device additionally comprises a left-click actuator mounted to the
4 housing such that, when the housing is grasped by the user with the top surface of the
5 housing substantially centered in the palm of the hand, the index finger of the user is
6 aligned with the trackball and the thumb of the user is aligned with the left-click
7 actuator.

1 6. The input device of claim 4, wherein:
2 the housing is sized and shaped to be grasped by a hand of a user; and
3 the input device additionally comprises a right-click actuator mounted to the
4 housing adjacent to the trackball such that, when the housing is grasped by the user
5 with the top surface of the housing substantially centered in the palm of the hand, the
6 index finger of the user is aligned with the trackball and the right-click actuator.

1 7. The input device of claim 6, wherein the right-click actuator at least partially
2 surrounds the trackball.

1 8. The input device of claim 6, wherein:
2 the right-click actuator has an aperture; and
3 a portion of the trackball protrudes from the housing and through the aperture.

- 1 9. The input device of claim 6, wherein:
2 the housing has a centerline; and
3 at least a substantial portion of the right-click actuator is located left of the
4 centerline.
- 1 10. The input device of claim 6, further comprising:
2 a scroll wheel mounted to the housing such that, when the housing is grasped
3 by the user with the top surface of the housing substantially centered in the palm of
4 the hand, the middle finger of the user is aligned with the scroll wheel.
- 1 11. The input device of claim 10, wherein at least a substantial portion of the
2 right-click actuator is located left of the scroll wheel.
- 1 12. The input device of claim 1, wherein the housing is configured and the
2 trackball is arranged to be operated by a right hand of a user.

1 13. A computer system comprising:
2 a processor operative to execute instructions;
3 memory operative to store the executable instructions; and
4 an input device operative to provide a user interface with the processor, the
5 input device comprising:
6 a housing;
7 a position-determining system mounted to the housing, the position-
8 determining system being operative to determine movement of the housing and to
9 provide a first output corresponding to the movement of the housing; and
10 a trackball mounted to the housing, the trackball being operative to
11 rotate and to provide a second output corresponding to rotation of the trackball.

1 14. The computer system of claim 13, wherein:
2 the computer system additionally comprises a keyboard having arrow keys, the
3 arrow keys comprising an up-arrow key, a down-arrow key, a left-arrow key and a
4 right-arrow key; and
5 the second output of the trackball corresponds to outputs provided by the
6 arrow keys.

1 15. The computer system of claim 14, wherein the outputs provided by the arrow
2 keys are remapped to the trackball.

1 16. The computer system of claim 14, wherein the outputs provided by the arrow
2 keys are redundant with respect to the second output of the trackball.

- 1 17. An input device for a computer comprising:
2 a housing configured as a mouse-type input device;
3 means for determining movement of the housing;
4 means for providing a first output corresponding to the movement of the
5 housing; and
6 means for providing a second output corresponding to a two-dimensional
7 motion input of a user.
- 1 18. The input device of claim 17, further comprising:
2 means, oriented for actuation by a thumb of a user, for providing left-click
3 functionality.
- 1 19. The input device of claim 17, further comprising:
2 means, oriented for actuation by an index finger of a user, for providing right-
3 click functionality.
- 1 20. The input device of claim 17, further comprising:
2 means, oriented for actuation by a middle finger of a user, for providing scroll
3 functionality.